IN THE CLAIMS

Claims 1-9 (Withdrawn).

Claims 10 - 22 (Cancelled).

23. (New) A method of producing a positive electrode active material for a non-aqueos electrolyte cell, comprising:

(a) mixing a first ingredient with a lithium composite manganese oxide of about 86% by weight of the lithium composite manganese oxide;

(b) molding the mixture under pressure;

(c) sintering the mixture at a temperature not lower than 600°C and not higher than 900°C; wherein

(1) the positive electrode active material comprises lithium composite manganese oxide having a spinel structure whose primary particle diameter is not less than 0.05 μm and not greater than 10 μm, forms an aggregate, and whose specific surface area measured by the BET method is not less than 0.2 m^2/g and not greater than 2 m^2/g;

(2) the non-aqueos electrolyte cell comprises a negative electrode having a material capable of reversively doping and dedoping lithium, wherein the material capable of reversively doping and dedoping lithium is at least one selected from the group consisting of a carbon material, metal lithium, lithium alloy, polyacene, and polypyrol;

(3) wherein the carbon material is at least one selected from the group consisting of pyrocarbon, coke, glassy carbon, organic polymer compound sintered body, and carbon fiber; and

(4) wherein the lithium composite manganese active material is expressed by a general formula $Li_xMn_{2-y}M_yO_4$, wherein $.09 \leq x \leq 1.4$; $y \leq .3$; and M is one or more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al.

24. (New) The method of claim 23, wherein the spinel structure has a primary particle diameter that is not less than 0.1 μm and not greater than 5 μm.

25. (New) The method of claim 23, wherein the spinel structure has a primary particle diameter that is not less than 0.5 μm and not greater than 3 μm.

26. (New) The method of claim 23, further comprising pulverizing the sintered mixture.

27. (New) The method of claim 23, wherein the step of mixing the first ingredient further includes creating a slurry of 86% by weight of lithium composite manganese oxide, about 10% by weight of graphite, about 4% polyvinylidence fluoride, which then dissolved in a solvent.

28. (New) The method of claim 27, further comprising uniformly applying the slurry to aluminum foil to obtain a thickness of about 20 μm.

29. (New) A method of producing a positive electrode active material for a non-aqueos electrolyte cell, comprising:

(a) mixing a first ingredient with a lithium composite manganese oxide of about 86% by weight of the lithium composite manganese oxide;

(b) molding the mixture under pressure;

(c) sintering the mixture at a temperature not lower than 600°C and not higher than 900°C; wherein

(1) the positive electrode active material comprises a lithium composite manganese oxide having spinel structure and whose primary particle diameter is not less than 0.05 μm and not greater than 10 μm, forms an aggregate, and whose specific surface measured by the BET method is not less than 0.2 m^2/g and not greater than 2 m^2/g;

(2) the non-aqueos electrolyte cell comprises a negative electrode having a carbon material selected from the group consisting of pyrocarbon, coke, glassy carbon, organic polymer compound sintered body, and carbon fiber; and

(3) the non-aqueos electrolyte cell comprises an electrolyte.

30. (New) The nonaqueous electrolyte secondary cell of claim 29, wherein the negative electrode contains a material capable of reversively doping and dedoping lithium.

31. (New) The nonaqueous electrolyte secondary cell of claim 30, wherein the material capable of reversively doping and dedoping lithium is at least one selected from the group consisting of a carbon material, metal lithium, lithium alloy, polyacene, and polypyrol.

32. (New) The nonaqueous electrolyte secondary cell of claim 29, wherein the positive electrode comprises about 86% of the positive electrode active material, about 10% graphite, and about 4% polyvinylidene fluoride.

33. (New) The nonaquous electrolyte secondary cell of claim 29, wherein the electrolyte is at least one selected from the group consisting of $LiClO_4$, $LiAsF_6$, $LiPF_6$, $LiB(C_6H_5)_4$, LiCl, LiBr, CH_3SO_3Li, and CF_3SO_3Li.

34. (New) The nonaqueous electrolyte secondary cell of claim 29, wherein the electrolyte is dissolved in an organic solvent that is selected from the group consisting of propylene carbonate; ethylene carbonate; 1,2-dimethoxymethane; gamma-butyrolactone; tetrahydrofuran; 2-methyltetrahydrofuran; 1,3-dioxolane; sulfolane; acetonitrile; diethyl carbonate; and dipropyl carbonate.